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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/602,483	06/23/2000	Melvin J. Albrecht	6096	8998

7590 03/24/2004

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EXAMINER

TRAN, HIEN THI

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 03/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/602,483

Applicant(s)

ALBRECHT ET AL.

Examiner

Hien Tran

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15 and 16 is/are allowed.
- 6) ☒ Claim(s) 1, 5, 7, 10, 12-14 is/are rejected.
- 7) ☒ Claim(s) 2-4, 8 and 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

1. The drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the drawings to comply with CFR 1.84(p)(5), e.g. they should include the reference sign(s) mentioned in the specification and vice versa.

### ***Specification***

2. The disclosure is objected to because of the following informalities:

On page 8, line 5 --or apertures-- should be inserted before "100" for consistency (note page 6, lines 10-11).

Appropriate correction is required.

3. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 5, 7, 10, 12, 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Martinelli et al (5,599,508) in view of Myers et al (4,980,099).

Art Unit: 1764

With respect to claims 1, 13, Martinelli et al discloses an apparatus comprising: means for supplying ammonia to an injection tube associated with the air foils as described in Myers et al, the injection tube provided with nozzles for injecting ammonia into the flue gas (col. 3, lines 23-37).

Although Martinelli et al does not explicitly disclose the structure of the air foils associated with the injection tube, such is inherent therein as evidenced by Myers et al.

With respect to claim 5, note the trailing tapered edge of the air foil and the injection tube in Fig. 3 of Myers et al.

With respect to claim 7, note the plurality of nozzles in Martinelli et al and in Fig. 3 of Myers et al.

With respect to claims 10, 14, note the tee extension pipe or nozzles 4, 5, 6 extending from the injection tube in each air foil 10 in Fig. 3 of Myers et al.

With respect to claim 12, note that the air foils in Myers et al extends substantially horizontally within the flue.

Instant claims 1, 5, 7, 10, 12, 13-14 structurally read on the apparatus of Martinelli et al.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1764

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over by Martinelli et al (5,599,508) in view of Myers et al (4,980,099).

Martinelli et al discloses that the injection tube extends substantially vertically within the flue.

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to place the airfoils extending vertically within the flue since Martinelli et al discloses that the injection tube extends vertically within the flue and since positioning the parts of the apparatus is no more than a design choice, and well within the knowledge of one skilled in the art. Note that it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over by Martinelli et al (5,599,508) in view of Myers et al (4,980,099) and the admitted prior art on pages 1-3 of the instant specification.

On pages 1-3 of the instant specification, applicants admit as prior art air foils 70 for injecting reactant into the flue gas, said air foils having apertures on opposed lateral sides of the air foils.

Art Unit: 1764

It would have been obvious to one having ordinary skill in the art to alternately construct the air foils as taught by the prior art admitted on pages 1-3 of the instant specification in the modified apparatus of Martinelli et al, as such structure of the air foils is conventional in art and no cause for patentability here.

***Allowable Subject Matter***

10. Claims 15-16 are allowed.
11. Claims 2-4, 8-9 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien Tran whose telephone number is (571) 272-1454. The examiner can normally be reached on Tuesday-Friday from 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 09/602,483

Page 6

Art Unit: 1764

*Hien Tran*

HT

March 21, 2004

**Hien Tran**  
**Primary Examiner**  
**Art Unit 1764**